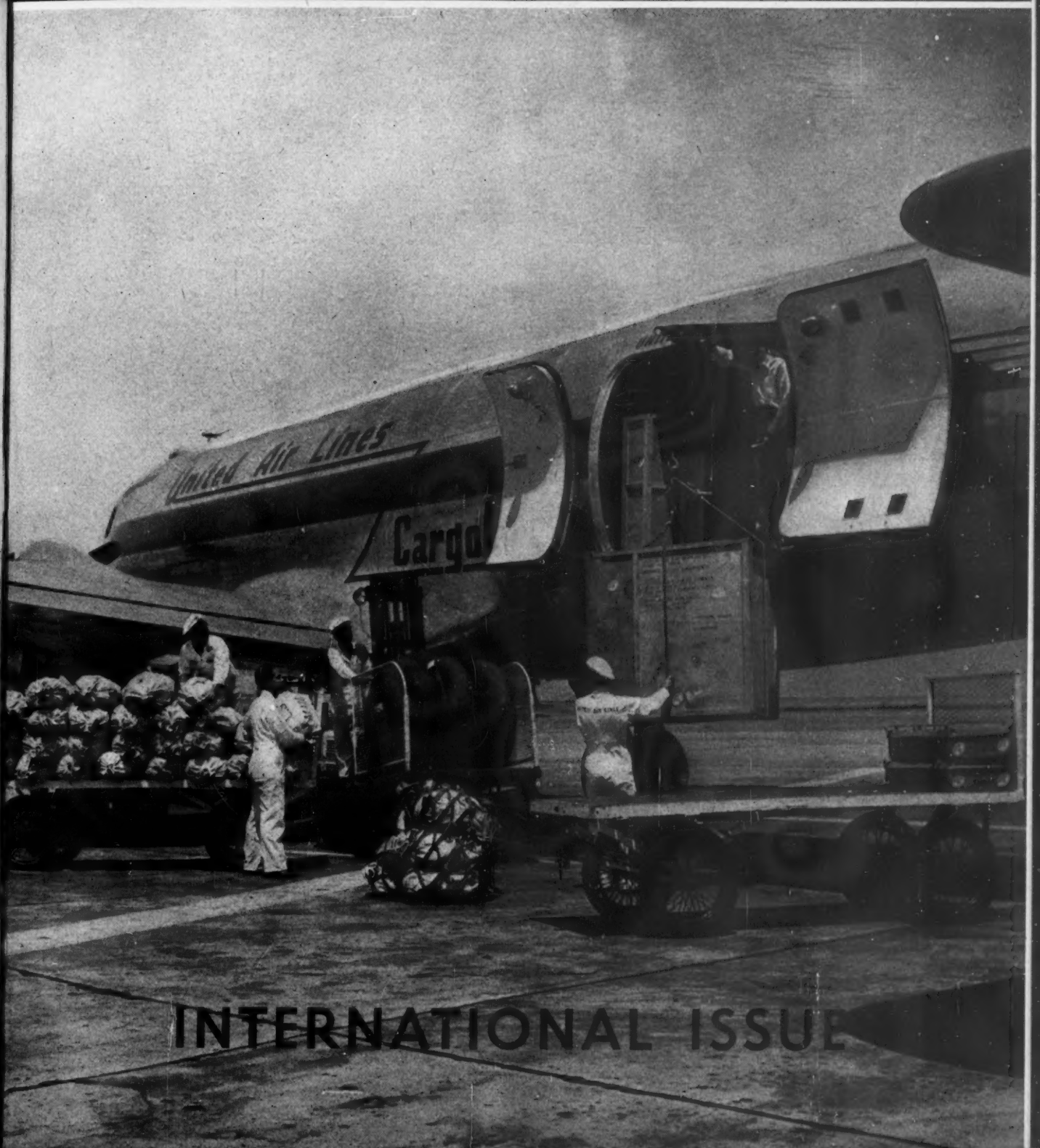


Industrial

In Two Parts—Part I

August 1947

Standardization



INTERNATIONAL ISSUE

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Readers Write

Safety Color Code for Marking Cans

*Aluminum Company of America
Pittsburgh, Pa.*

Gentlemen: We are very anxious to ascertain if a standard color scheme for identifying flammable liquids in small containers has been adopted. We are familiar, of course, with the Scheme for the Identification of Piping Systems, A13-1928 and thought possibly that the same color scheme had been worked out for containers with such flammable liquids as gasoline, kerosene, lubricating oil, fuel oil, paint spirits, turpentine, carbon tetrachloride, naphtha, and benzol.

H. J. HARTMANN

• • The American Standards Association was pleased to send Mr Hartmann a copy of the American War Standard Safety Color Code, Z53.1-1945 calling his attention particularly to the section on "Danger" (paragraph 2.2.2) which suggests that safety cans or other portable containers of flammable liquids should be painted red with some additional clearly visible identification either in the form of a yellow band around the can or the name of the contents stenciled or painted on the can.

Seek Permission to Translate and Reprint Standards

*La Société Canadienne de Technologie
Quebec, Canada*

Gentlemen: We are presently at work on the preparation of several textbooks dealing with building trades. Eventually, we shall print, in French, other books to give practical data on mechanical drawing, machines, machine shop operation. In view of the close relationship that exists between Canadian and American Standards, and especially because most of the machines in use around here are American-made, we consider American Standards should be definitely adopted by our artisans. We would appreciate your permission to quote, by translation, some of the text matter.

LOUIS A. BELISLE
Chief Editor

• • Permission to translate and reprint portions of American Standards was granted by the American Standards Association in the belief that it will contribute to the international extension of our work.

Our Front Cover

International cooperation to establish safety standards in civil aviation is discussed in article on page 199.

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Part 2

American Standards—Price List

August, 1947

Ruth E. Mason, Editor

35 Cents



Reg. U. S. Pat. Off.

The American Standards Association is a federation of national groups dealing with standardization. Through it, government, industry, labor, and the consumer work together to develop mutually satisfactory national standards. It acts as the authoritative channel for international cooperation in standardization work.

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The ISO Council—Members, Guests, and Staff

Front row, seated, from left to right: F. Streiff, Switzerland, treasurer of ISO; Miss G. Harrison, United Kingdom; G. L. Gerard, Belgium, vice-president of ISO; Howard Coonley, U.S.A., president of ISO; E. Uytborck, Belgium, president of IEC; C. leMaistre, provisional secretary general of ISO, general secretary of IEC.

Second row: W. Kuert, Switzerland; Mlle Specker, central office; R. Tavernier, France; Miss J. Marshall, central office; M. Hway, China; J. G. Mallock, Canadian representative on IEC; Mme M. Sassot, central office; D. Goliaev, USSR; E. Lhoste, France; Miss W. Harle, interpreter; L. Ruppert, assistant provisional secretary general; Mme Schapper, central office.

Rear row: K. Heiberg, Norway; L. Bedin, ICAO; Percy Good, United Kingdom; P. Salmon, France; F. Faraker, Australia; M. Parfenow, USSR; G. Antonievitch, interpreter for USSR representatives; G. P. Paine, U.S.A.; Cyril Ainsworth, U.S.A.; Mlle Nicolas, official recorder; H. Abegg, Switzerland.

New Steps in International Cooperation

Meeting of ISO Council called model for international cooperation. New international association will open headquarters in Geneva, Switzerland, in the fall. Is now in process of organizing 67 technical projects.

IN a meeting which has been called "of great significance to the reconstruction, the progress, and the future peace of the world," representatives of the national standardizing bodies of nine countries, members of the Council of the International Organization for Standardization, came together in Zurich, Switzerland, June 17-20. During their meeting they set up a final working organization to carry on standardization at the international level. Their agreements resulted in an international program which, as a start, will cover some 67 technical projects ranging from textiles to automobile parts.

The office of the International Organization for Standardization will be opened in the fall in a new building now being constructed at Geneva, Switzerland.

Adoption of International Standards To Be Entirely Voluntary

All the work done on international projects, and acceptance of the resulting recommendations in each member country, will be voluntary. The work of the national standards bodies will be the basis for these cooperative activities. In each country, the groups concerned will have an opportunity to take part and to express their views on any project through the facilities of their national standardizing body, which will have the responsibility for seeing that these groups are kept fully informed of all ISO activities. At least five member nations must indicate their interest in an international project before such a project will be initiated.

When the American Standards Association receives notice of a proposed project, it will send a letter to all groups that might be concerned asking if they are interested. If there is an ASA sectional committee dealing with the subject, decisions in connection with international cooperation will be left to this committee as being a body broadly representative of American interest in the subject. If there is no sectional committee, international cooperation may be obtained either by organizing a sectional committee or in some other way that will assure that all major interested groups in the United States have a chance to express their opinion.

ISO To Take Over Many Projects Initiated Under ISA

The International Organization for Standardization will take over many of the projects started under the procedure of the former International Federation of National Standardizing Associations (ISA). The ISA was organized in 1926, when it had become evident that industrial standardization should not be limited to national coordination of standards but required international unification if it were to be most effective, particularly in connection with international trade. Between the first and second world wars, the ISA organized close to 50 international projects. Among its important accomplishments were the following:

The international reference temperature for limit gages was established at 20 C or 68 F. For the sake of this agreement, France and Great Britain abandoned their original

standards, 32 and 62 F, respectively.

The inch-millimeter conversion ratio, 25.4, became a world standard, thanks to the international standard which was adopted in Great Britain and the United States.

Preferred numbers, an effective tool in the hands of the designer and the standardizer, also became an international standard.

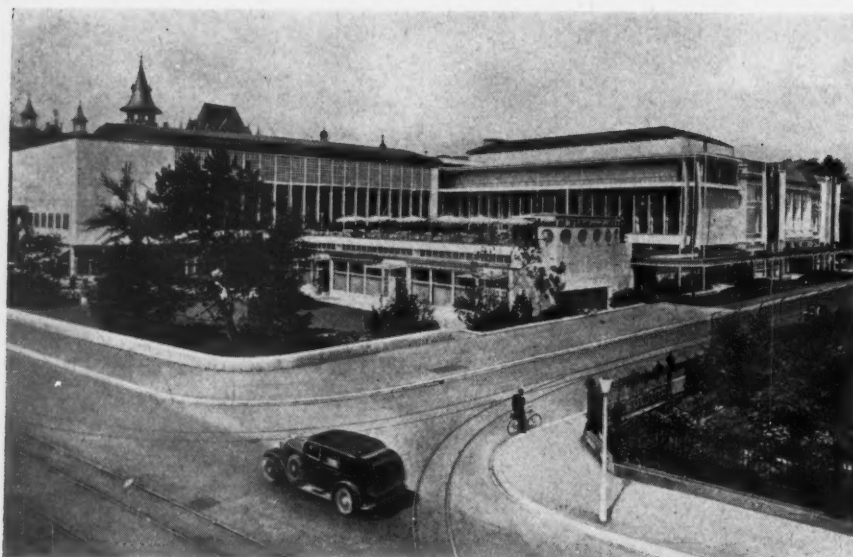
International systems of limits and fits for cylindrical parts and for paper sizes were developed by ISA committees and were generally adopted on the European continent.

American industry had a particular interest in the international unification of the sound-track location on 16-mm sound film, which established world-wide interchangeability between equipment for taking and projecting this film.

In addition, there was active American participation in the ISA projects on photography, acoustics, and flow measurement by means of nozzles and orifices.

Importance of International Cooperation Stressed by President

Upon his return to the United States, Howard Coonley, ISO president, stressed the importance of this international cooperative program when he said, "The peace of the world depends upon trade, and standardization will stimulate trade by increasing the exchange of goods and services throughout the world. The International Organization for Standardization has been set up to coordinate national standards rather than to adopt new international standards. Use of these standards is strictly voluntary but the eagerness with



Delegates from nine countries attended the meeting of the Council of the ISO held at the Kongress House, pictured above, in Zurich, Switzerland.

which the members seem willing to agree on basic things makes me feel confident that future cooperation is well assured."

Cyril Ainsworth, technical director of the American Standards Association, who was ASA representative at the Council meetings reported that

he was impressed with the cooperative spirit evident at the meetings. "The smoothness of the discussions there might well serve as a model for international negotiations at every level," he said.

Cooperation Marks Meeting

Corroborating this impression, Mr Coonley declared, "There were marked evidences of cooperation at the Council meeting. The British, French, and Scandinavian countries have been doing a great deal in development of standards and were eager to do more. The Russians took part and were very cooperative."

For the text of Mr Coonley's welcoming address to the Council delegates, see article below. Mr Ainsworth's report as representative of the American Standards Association on the ISO Council starts on page 191 and his report as representative of the United States National Committee of the International Electrotechnical Commission is on page 194.

INTERNATIONAL STANDARDS— Aid to Lasting World Peace

By Howard Coonley

President, ISO

An abstract from the opening address of the meeting
of the ISO Council, Zurich, Switzerland, June 17, 1947

THIS movement and this meeting are of great significance to the reconstruction, the progress, and the future peace of the world, for it is my conviction that the greatest assurance of permanent world peace can come from the unrestricted exchange of goods and services between the nations great and small. Certainly no means can be more effective in achieving this goal than the establishment of sound and basic international standards in the fields of industry, commerce, and social behavior.

In my country, as I trust is true in yours, the immediate postwar period has shown a greatly broadened interest in the benefits of standardization. It has broken its restricted prewar bonds and is expanding rapidly into new fields of endeavor. Standardization of terminology, of nomenclature, of rules of procedure is being extended rapidly. In fact, no longer are standards considered an instrument especially designed for the technician. Standards today are recognized as one of the most effective tools of management in all



its varied responsibilities—a shortcut to efficiency as well as economy.

It is especially significant, I think, that representatives of other international organizations are sitting

with us as observers. On behalf of the ISO I bid them welcome. Their presence is a clear indication of the broadened interest in standardization which now exists. It indicates the larger degree of responsibility which the ISO must assume as compared with that of its predecessor organizations, if it is to fully exert its rightful leadership in the application of the principles of standardization to

the economic and social advancement of the world.

We who have undertaken the important obligation of planning and directing the course of international standards have a responsibility far greater than that with which we are charged in our individual national societies. For we must move with expedition into an area of great latitude, yet in doing so we must be sure

to concern ourselves only with problems and projects of significant importance. We must resolve to dedicate our efforts to the advancement of industry and commerce throughout the world and thereby to raise the standard of living and promote the contentment of the people of all nations. In this way we can become a vital element in achieving permanent peace.

ISO Council Sets Up Permanent Organization

By Cyril Ainsworth

United States representative at the Council meeting; technical director and assistant secretary of the American Standards Association

Report of the meeting of the Council of the International Organization for Standardization, Zurich, Switzerland, June 17-20, 1947



FORMAL organization of the work of the International Organization for Standardization (ISO) was accomplished at the meeting of the Council of ISO held in Zurich, Switzerland, June 17-20, 1947.

The Council is composed of representatives of the national standards bodies of Australia, Belgium, Brazil, China, France, India, Norway, United Kingdom, Switzerland, USSR, and the United States. The representatives of Brazil and India were unable to attend the meeting. Howard Coonley, president of ISO and chairman of the Executive Committee of the American Standards Association, presided. G. L. Gerard, vice-president of ISO, representing Belgium, and F. Streiff, treasurer of ISO, representing Switzerland, C. leMaistre, provisional secretary general, and his assistant, L. Ruppert, were also present.

This meeting of the Council can be considered to have been one of considerable accomplishment, and the spirit of interest, degree of co-

operation, and unanimity of decision shown at the meeting caused all those present to feel that the ISO is headed toward a program of successful activities.

The Swiss national standards body, in serving as host to the Council, not only made complete arrangements for the accommodation of the individual members in the various hotels of Zurich, but also provided complete meeting facilities at Kongresshaus, a building of unique design and facility for the holding of conventions, large gatherings, and small conferences and committee meetings.

Mr Coonley in his opening remarks expressed his belief in the importance of standardization as an aid to free trade between nations large and small. He stated that he was convinced that the removal of trade barriers and the conducting of foreign trade on a basis of mutual understanding would have a vital effect on the future peace and prosperity of the world.

Mr Streiff, as president of the

Swiss national standards body, in welcoming the Council to Zurich, expressed the pleasure of Switzerland in once again being able to welcome representatives of the various nations of the world. Switzerland, whose borders had been closed to visitors for a number of years, had been required to live entirely within itself, and, apart from the significance of the fact that the first meeting of the Council was being held in Zurich, the meeting served as a symbol of the removal of the barriers which had shut off Switzerland from the rest of the world for so many years.

As one of the first items of business before the Council, the Provisional Secretary reported that, as of the date of the opening of the Council meeting, 24 countries had ratified the constitution and rules of procedure of ISO. Therefore, the constitution and rules of procedure had gone into effect. Two additional countries, Chile and Hungary, were admitted, making the total membership of ISO 26 countries. The Secretary stated that several countries,

in ratifying the constitution and rules of procedure, had indicated that at some future time they would suggest changes which they believed to be of importance. The President ruled that these changes should be forwarded to the full membership of the ISO through the central office, preparatory to their formal consideration, in accordance with the provision of the constitution and rules of procedure.

The American Standards Association, as the first nation to ratify the constitution and rules of procedure, had given notice that it would make suggestions for changes which it believed desirable in order to avoid misunderstanding and misinterpretation. The Board of Directors of ASA has appointed a special committee to formulate these proposals.

Among the important questions before the Council was the relationship of ISO to other international organizations that are interested in whole or in part in standardization work. Representatives of the International Civil Aviation Organization, the International Labor Office, the United Nations Educational, Scientific, and Cultural Organization, the International Dairy Federation, and the International Federation for Documentation, were represented at the meeting through observers, each one of whom explained the nature of his organization and its interest in standardization work.

ICAO Representative Expresses Hope for ICAO-ISO Relationship

L. Bedin, as the representative of the International Civil Aviation Organization, stated that his group had studied the work of the former International Standards Association, particularly those items which related directly or indirectly to aviation. He expressed the belief that the great benefits which in the past had been derived from cooperation among the various national standards bodies and the various branches of industry concerned with civil aviation were a favorable augury for the kind of productive relationship which could be developed between ICAO and ISO. He stated that the convention under which ICAO operates requires that standards shall be adopted and amended from time to time on matters concerned with the safety, regularity, and efficiency of air navigation. Inasmuch as ISO projects for standardization in the field of aviation would be directed primarily

toward efficiency, economy, and convenience in the supply, utilization, and interchange of equipment, in his opinion the objectives of the two organizations would appear to be complementary and to a considerable extent to merge into one another. The Council unanimously agreed that a special committee should be appointed to meet with representatives of ICAO to discuss the methods by which the two organizations could cooperate with mutual advantage.

Chief of ILO Safety Service Sees Program of Cooperation

David Vaage, the Chief of the Safety Service of the International Labor Organization, attending the meeting as the representative of the Director General of the ILO, stated that the ILO was chiefly concerned with standardization through its activities in the field of industrial safety and industrial hygiene. He mentioned that the ILO had a committee on accident prevention which from time to time had prepared model codes, monographs, and conventions in the field of industrial safety for the guidance of the member countries in carrying forward their own accident prevention programs. He stated that this ILO committee had seen the necessity for standards to supplement the general provisions of the recommendations which it had prepared. Mr Vaage expressed the thought that it might be possible for ILO to suggest to ISO certain standardization activities. As examples he mentioned colors for the identification of piping systems, methods of marking compressed gas cylinders to identify the content, adequate standards for the labeling of containers of toxic and flammable substances, methods of recording and compiling accident statistics, and of preparing accident cause analyses so that the progress made in one country could be compared with that made in other countries. These would be typical of the type of standards which might be developed under the cooperative programs of the two organizations. Because of the extensive program of work in this field which had been carried on under the procedures of ASA, it was possible for the delegate from the United States to emphasize the importance of the type of work referred to by Mr Vaage. It was agreed by the Council of ISO that a special committee should be appointed to confer with representa-

tives of the Director General of ILO concerning a program of future cooperation.

The representative of UNESCO outlined the program of work of his organization, expressing the belief that the educational aspects of their program might indicate the best way in which the two organizations might collaborate with one another. He declared that it was important that various countries of the world thoroughly understand the importance of standardization and ISO could be of assistance to UNESCO in building an adequate educational program in this regard. He drew attention to the outline of a program of cooperation between UNESCO and International nongovernmental organizations which had been adopted by the Executive Board, and stated that several compacts between UNESCO and nongovernmental organizations had already been entered into. He cited the compact with the International Federation for Documentation as an example. The members of the Council participated in extensive discussion as to the type of cooperative program which might be established with UNESCO and it was agreed that additional information was needed before formal recommendations could be prepared. The Secretary General of ISO was requested to examine into this situation further, and General P. Salmon, representative of the French national standards body, was requested to continue as a liaison representative of ISO at meetings of UNESCO and to refer matters of importance to ISO for consideration.

Value of International Coordination Stressed by FID Representative

C. leMaistre, provisional secretary of ISO, was also present at the Council meeting as the representative of the International Federation for Documentation, in his capacity as president of that organization. He said that his organization was interested in standardization work in the library field. The items he mentioned covered some of those already included in the American Standard for Reference Data and Arrangement of Periodicals, which was approved by ASA in 1943. The FID was interested in the standardization of definitions, terminology, practices, and methods in the field of library practice. He believed that these matters were also of considerable interest to the various national standards bodies and that international coordi-

nation would prove to be of considerable value. He suggested that inasmuch as the FID would be meeting in Switzerland next August, a committee of the ISO might meet with representatives of the FID to develop a cooperative program. This suggestion was accepted by the ISO Council. The Swiss national standards body was requested to select a person who could serve as the representative of ISO at the meetings of the International Federation for Documentation.

International Dairy Federation Outlines Work of Its Organization

The representative of the International Dairy Federation outlined very completely the work of his organization, which includes an extensive program in the field of standardization. He expressed the opinion, however, that at the moment cooperation between the two organizations should consist only of exchange of technical information, through which a more complete program of technical cooperation could be developed. He did not believe that at the moment it would be desirable to appoint a special committee to develop a concrete program. He said that his organization would be pleased to keep the central office of ISO informed as to the progress of its work. Mr Gerard, the representative from Belgium, was requested to serve as liaison representative of ISO inasmuch as the headquarters of the International Dairy Federation are located in Brussels. Mr Gerard accepted this assignment and agreed to keep in close touch with the work of FID.

It should be mentioned in connection with the discussion of cooperation with these various international groups that the first three—ICAO, ILO, and UNESCO—are all branches of the Economic and Social Council of the United Nations. The International Organization for Standardization has filed a formal application with the Economic and Social Council of UN for recognition as a consultative scientific and technical nongovernmental organization. The president of ISO reported to the Council that it was understood that action on this application would be taken at a meeting of the Economic and Social Council to be held the middle of July. It is therefore significant that the Council of ISO, at the inception of its technical program, arranged for cooperative work

with these three groups officially affiliated with the Economic and Social Council.

Probably the most important discussion in the meeting of the Council of ISO concerning the relationships with other international organizations involved the suggested affiliation of the International Electrotechnical Commission with ISO as its Electrical Division. A rather extensive discussion of this matter is contained in the report of the meetings of the Council of IEC held in Zurich June 16 (see page 194). For the benefit of those who are primarily interested in the work of the ISO, it should be mentioned that the International Electrotechnical Commission is an international organization operating in the electrical field, which has been in existence for more than 40 years and which is primarily concerned with standardization work. The IEC is composed of national committees in various countries of the world, there having been in the United States a U.S. National Committee of the IEC for many years. The U.S. National Committee became affiliated with the American Standards Association in 1931.

Standards Developed by IEC Put Into Use Internationally

Many of the foremost electrical engineers in the world have participated in the work of the IEC, and the standards developed have been put into use internationally, providing a considerable degree of uniformity in language, definitions, ratings, methods of test, and equipment standards. It was natural, therefore, for the Commission to give careful consideration to any action which might seem to place the illustrious name and high prestige of the IEC in obscurity.

On the other hand, all phases of international standardization work except electrical standardization had in the prewar years been entrusted to the International Federation of National Standardizing Associations (ISA). It had seemed to many of the members of ISA, particularly those with whom the national committees of the IEC had become affiliated, that if international standardization work were to become a strong and potent influence on world economy a single international standardization body should be established. It was also believed by these members that an affiliation of the IEC with ISO could be obtained in a way

which would not destroy the name, prestige, and influence of the IEC.

This point of view prevailed in the preliminary discussions involved in creating ISO, and an invitation was extended to IEC to become affiliated as the electrical division of ISO. This invitation was formally accepted by the IEC at its meeting in Zurich on June 16, 1947, and the recommendations of the joint committee on administration procedure of the two organizations were formally approved by ISO in the meeting of its Council. Final consummation of the affiliation will be accomplished at the meeting of the Council of IEC to be held in the fall. This affiliation becomes a second major accomplishment of the meeting of the Council of ISO.

Another accomplishment of the ISO Council meeting was the selection of the Secretary General. The unanimous approval of Henry St Leger followed his selection by a special committee appointed at the London conference last year. Many of the member countries had nominated candidates for this position. Thus, a very strong list of candidates had been established. The elimination process began in the committee through correspondence whereby each member of the committee selected a first, second, and third choice. From this group the committee meeting in Zurich selected Henry St Leger. The members of ASA, through the pages of INDUSTRIAL STANDARDIZATION, have already been informed concerning the selection of Mr St Leger and his experience and qualifications. Following his selection, Mr St Leger went to Zurich and met all the members of the Council at a reception. All expressed satisfaction with his selection and his acceptance of the position. It is hoped that the new Secretary General will soon be able to visit the United States and that many of the members of ASA will have the opportunity of becoming acquainted with him.

Important Phase of Meeting Is Launching of Technical Program

One of the most interesting phases of the meeting of the ISO Council was the launching of the technical program. In some ways it was the most important. The ISO was organized to do technical work and this meeting had been called to organize the technical program.

In accordance with the decision of

the London conference, a special committee had met in Paris on April 30, 1947, to review the projects of ISA and the wartime United Nations Standards Coordinating Committee, as well as those projects which had been suggested after the war. It also was charged with the responsibility of recommending a program composed of the most important of these projects and of suggesting the national standards bodies which could be expected to assume the secretariat of the proposed projects. The report of this special committee was before the Council for consideration, and greatly simplified its work. The recommendations of the committee which were not questioned by members of the Council were immediately approved. The other recommendations were discussed at length and either modified, approved in original form, or further investigation and study planned.

67 Secretariats Assigned; Procedure For Project Initiation Established

The decisions of the Council in regard to the technical program actually consisted only of listing a series of 67 subjects and assigning secretariats for each of the 67 suggested projects, plus the establishment of a procedure for the formal initiation of each individual project. As a result, while it might be said that a technical program of 67 projects had been established, the formal initiation of actual technical work will in each case depend upon the carrying out of the procedure adopted for the initiation.

This seeming further delay in getting technical work under way should in the long run prove to be of considerable benefit. The procedure prescribes that the countries having the secretariat for each project shall prepare a scope outlining work to be undertaken which they shall forward through the central office to all the ISO member countries. The member countries shall then say whether they wish to participate in the proposed project. When five countries have agreed to participate, the secretariat will proceed to organize a committee composed of representatives of these countries, and will prepare tentative drafts for preliminary consideration through correspondence. Meetings of committees will be called whenever sufficient progress has been made by correspondence to justify the expense and time involved in such a meeting.

The dates and calls for meetings will be taken care of through the central office in order that the meetings can be grouped to facilitate attendance.

In the event the scope of work of a particular project as outlined by the secretariat does not appeal to at least five countries sufficiently to warrant their participation, the project will be dropped. This procedure will insure sufficient interest in a project to justify its initiation and will eliminate all others. This fact justifies the further delay involved.

The United States, through the American Standards Association, was awarded the secretariat for five projects. Two additional projects in which the United States may be called upon for leadership will require further study. While the ISO Council agreed that no publicity would be given to the full list of projects until the secretariats had made formal proposals for their scope, it can be said that leadership was reassigned to the United States for the projects on petroleum products and photography. The United States had leadership for these projects under the ISA in prewar years, so we are called upon to continue the work previously started. Cinematography, the companion project to photography, was also assigned to the United States. As soon as conferences with the American industrial groups concerned outline the specific scope of the work for the additional projects, the subjects will be announced.

The American textile industry last April had indicated that it had sufficient interest in certain phases of standardization in that industry to

desire to assume the secretariat for the work. This conflicted with recommendations of the special committee on assignments which had assigned the secretariat to the United Kingdom. The UK and the USA will continue to study this matter and endeavor to agree on a program. Similar discussions with France will be necessary in regard to agricultural machinery.

Budgets of 175,000 Swiss francs (\$70,000 approximately) for 1947 and 210,000 Swiss francs (\$84,000 approximately) for 1948 were approved. Some nonrecurring items involved in establishing the central office are included in the 1947 budget, thereby indicating that a larger proportion of the 1948 budget will be available for the technical program.

In summary, it can be said that the principal accomplishments of the Council meeting were:

- (a) Arrangements for cooperation with other international organizations were established
- (b) Affiliation of the IEC with ISO as the Electrical Division of ISO was consummated
- (c) A Secretary General of ISO was elected
- (d) A technical program was established

In conclusion it can be said that the businesslike way in which Mr Coonley conducted the meetings established a model for future sessions which was enthusiastically approved by all members. This not only generated a feeling of accomplishment but also went a long way in developing and cementing the feeling of goodwill which existed throughout the sessions.

The Second Postwar Meeting Of the IEC Council

Report by Cyril Ainsworth

THE second postwar meeting of the Council of the International Electrotechnical Commission was held in Zurich, Switzerland, June 16, 1947. The countries represented were Belgium, Canada, Spain,

France, Italy, Portugal, Sweden, Switzerland, the United Kingdom, and the United States of America. E. Uytendaele of Belgium, president of the IEC, presided at the Council meeting. Dr P. Dunsheath of Great

Britain, the Honorary Secretary, C. leMaistre, General Secretary, and L. Ruppert, Assistant General Secretary of the IEC, were also present.

The most important item of business discussed at the meeting was the question of affiliation with the International Organization for Standardization (ISO). The ISO, formed out of the prewar International Standards Association (ISA) and the wartime United Nations Standards Coordinating Committee (UNSCC), was launched provisionally at meetings at Paris, July 1946, and London, October 1946.

The nations represented in the ISO, some of which also had representation through national committees of the IEC, believed that the international standardization movement would be strengthened if those organizations primarily concerned with standardization were closely affiliated. The ISO, therefore, had previously extended an invitation to the IEC to become affiliated with it as the Electrical Division.

Paris Meeting of IEC Council Considered Problem of Affiliation

The first postwar meeting of the Council of the IEC held in Paris in July 1946 had carefully considered this proposal. The IEC has been in existence for more than 40 years. It has carried forward an extensive program in electrical international standardization work and it was important, therefore, that all angles of the proposal to affiliate with ISO should be carefully weighed and considered.

The Paris meeting of the IEC Council took provisional action agreeing to this affiliation. Further discussion of the problem took place through correspondence. It was necessary, however, that an additional meeting be called at which action could be taken to enable the ISO to proceed with its technical program.

In addition to the important consideration that such affiliation would present a united front in the field of international standardization work, several of the countries having membership in both IEC and ISO had suggested that economies could be realized if the staffs of the two organizations could be combined in a single office under a single secretary general.

The Council of the IEC, at its meeting in Zurich, spent a large part of the day discussing this ques-

Cyril Ainsworth served as representative of the United States National Committee of the International Electrotechnical Commission at the meeting of the IEC Council, Zurich, Switzerland, June 16, 1947.

tion of affiliation. No country opposed the proposal in principle, but there was much difference of opinion on the questions of finance and merger of the secretariats. Some believed that the IEC should agree to become the Electrical Department of ISO, but that it should continue with its own staff and budget. Others believed that a combined budget should be established, but that the staffs might remain separate entities until the new central office of the ISO could be more firmly established and have developed an experience in handling the technical work. Still others believed that immediate and complete affiliation was desirable.

Several proposals along these lines were discussed at length. All were finally discarded in favor of one proposal, unanimously adopted, in the form of a resolution, as follows:

"The IEC agrees to affiliate with the ISO and hereby adopts the ISO constitution and is prepared to cooperate immediately as the Electrical Division of ISO in accordance with Article 12 of this constitution on the condition that the name and technical procedure of IEC be maintained."

As a second part of the resolution, the ISO was requested to appoint representatives to meet with representatives from the IEC to formulate administrative procedures, particularly covering such matters as financial policy and coordination of office facilities. Decisions of this joint committee were to be considered at a meeting of the Council of ISO held in Zurich on June 17, 18, 19, and 20, and at a meeting of the IEC Council to be held in approximately three months following the June 16 meeting.

The ISO Council at its meeting the day after the meeting of the IEC appointed three delegates to meet with an equal number from the IEC. It was possible for this joint committee to hold a meeting, prepare its recommendations, and have them considered by the ISO Council before its adjournment.

The committee recommended that the affiliation, which carried with it the agreement of the IEC to serve as the Electrical Division of the ISO, could be considered in the form of a contract and that therefore either party (ISO or IEC), if at any time in the future it believed the affiliation was not working out satisfactorily, might, upon proper notification to the other party, withdraw from the affiliation. It was realized that the possibility of such a withdrawal was very remote indeed. As future experience was more likely to cement the bond than to cause it to be broken, it was agreed that the ISO should be free to establish its own budget, for the time being at least, and that countries paying dues to both organizations could, if they so desired, pay combined dues to the central office of the ISO.

It was further agreed that the secretariat of the ISO should become the secretariat of the IEC at the earliest possible date within a year. This would mean that the ISO Secretary General would arrange for the proper handling of the technical work of IEC under the procedures of the IEC which had been in operation for many years. In addition, however, he would introduce into the combined work of the two organizations those economies of operation which it was believed might be realized through the merging of the two central offices. These recommendations of the joint committee were approved by the Council of the ISO. They have been circulated by mail for written approval of the national committees of the IEC and, as stated above, are to be considered at a meeting of the IEC Council this fall.

Strong Central Organization To Aid International Standardization

Through these actions, it is believed, a great step has been taken in strengthening the international standardization movement. They should pave the way for bringing to a strong central organization all phases of standardization work which, judging from the experiences of the national organizations, can best be coordinated and developed through the services of a central organization.

Mr leMaistre, as General Secretary of the IEC, presented an extensive report in regard to the various technical projects. Technical project work since the war has been car-

ried on largely through correspondence. The Swiss National Committee of the IEC has invited the IEC to hold meetings of a number of its committees in Lucerne next autumn. Following a discussion of the technical work, it was agreed, in accepting the invitation of the Swiss national body, that Committee 6 on Lamp Caps and Holders, Committee 12 on Radio Communication, Committee 23 on Electrical Accessories (Wiring Devices), Committee 30 on X-Ray High Voltages, and the Committee on Radio Interference (CISPR), will hold meetings during

the week of October 20 at Lucerne.

The British National Committee of the IEC announced that it would be ready to hold a meeting of Committee 31 on Flameproof Enclosures in London in November.

The various national committees of the IEC were urged to arrange for representation at these various committee meetings so that the greatest possible progress may be made while the committees are in session.

Reports of the central office in regard to the finances of the International Electrotechnical Commission were accepted. The meeting of the

Council adjourned, subject to the call of the chair.

Howard Coonley, chairman of the Executive Committee of ASA and president of the ISO, also attended the meeting in order to obtain a first-hand picture of the discussions on the important matter of affiliation with ISO. Mr Coonley, as president of ISO, expressed his appreciation of the very generous and forward-looking position which the IEC had taken and gave every assurance of the complete cooperation of ISO in the furthering of the joint program.



L. F. Adams
President, U.S. National Committee
of the IEC

How

INTERNATIONAL ELECTRICAL Standards Work Is Done

Thirty-three technical committees and the Special Committee on Radio Interference are now resuming work on international electrical standards. United States has secretariat for six projects

AN outstanding record of achievement over the past 40 years is the result of the work done by the International Electrotechnical Commission which is today recognized as the most successful voluntary international standardizing agency in existence.

Established in 1906, as the result of a resolution passed by the Chamber of Government Delegates at the St Louis Electrical Congress in 1904, the IEC's object was, and still is, to provide the permanent machinery whereby any international problem of standardization in the electrical field can be given continuous study, rather than intermittent study by infrequent international conferences.

Consisting of 26 national com-

mittees (at the beginning of World War II), each of which is representative of all sections of the electrical industry within its respective country, the IEC is constituted to undertake any and all problems of electrical standardization. Requests for standardization work are made by the electrical industries of the various countries speaking through the medium of their national committees.

The recommendations of the IEC represent, as far as practicable, an international consensus on the subjects dealt with, and they are accepted by the IEC national committees for international purposes. The national committees, when accepting IEC recommendations as international rules, are under no obligation

to modify their own rules except with the consent of their industry. It is the understanding, however, that they will make every endeavor to harmonize their rules with the IEC recommendations in so far as their national conditions permit. This is being done to an increasing degree.

The earliest achievement of the IEC came in 1912 when its members agreed to standardize the resistivity of copper; perhaps its greatest accomplishment has been the establishment of the basis for the rating of electrical machinery. During the war, activity of the organization was suspended but now it is being resumed as rapidly as conditions permit. The commission now has 33 technical committees and an Inter-

national Special Committee on Radio Interference.

The IEC undertakes new work only when it has been requested to do so by one or several national committees and when the usefulness of this work has been definitely recognized. Each subject is studied by an advisory committee composed of one representative from each of the national committees specially interested in the matter, though all are kept in touch with the details and the progress of the work. The task of an advisory committee is to discuss the various proposals received from the national committees, and to submit definite recommendations for adoption by the whole Commission. The work is carried out partly by correspondence and partly in meetings, convened whenever necessary. Each advisory committee has a secretariat which is responsible for its actions to the Council of the Commission. This is generally entrusted to the national committee believed best qualified to ensure the progress of the work.

Each national committee has one vote, and while the recommendations of the advisory committees are usually adopted by general consent of all concerned, in those cases where this is not possible the Statutes pro-

Officers of the U. S. National Committee, IEC

Officers of the United States Committee of the International Electrotechnical Commission are:

L. F. Adams, General Electric Company, *President*
P. H. Chase, Philadelphia Electric Company, *Vice-President*
H. S. Osborne, American Telephone and Telegraph Company, *Vice-President and Treasurer*
J. W. McNair, American Standards Association, *Secretary*

vide for a four-fifths majority of the votes recorded at the Plenary Meetings or expressed by correspondence, and this principle is adopted throughout the work.

The United States has been assigned the secretariat of six committees: hydraulic turbines, steam turbines, internal combustion engines, electric and magnetic magnitudes and units, letter symbols, and coordination of insulation. This work is handled by the U. S. National Committee which consists of the

members of the American Standards Association's Electrical Standards Committee, three representatives of the American Society of Mechanical Engineers, and a group of members-at-large.

Prior to 1931, the U. S. National Committee was an independent body, but operated under the aegis of the American Institute of Electrical Engineers. The various organizations concerned were represented on the committee. The USNC had its own technical advisory groups which in some cases were largely the same as ASA committees engaged in national standardization work in the United States. There was considerable duplication between the two groups. In 1931, therefore, when the new Electrical Standards Committee was formed to supersede the Electrical Advisory Committee and to strengthen its electrical work, the USNC decided to consolidate its work with this group. Thus, the USNC conducts, as an agent, the international business of the Electrical Standards Committee with the IEC, no longer using machinery of its own to ascertain or formulate American opinion. This combines the national and international phases of electrical work under a single effective administrative group.

ILO Record Shows 27 Years Of International Cooperation

SAFETY devices for machines, personal protective equipment, and accident statistics were suggested as some of the fields in which the International Labor Organization and the International Organization for Standardization may collaborate now that they have agreed to establish liaison between their respective groups.

D. Vaage, representative of the ILO at the ISO meetings in Zurich where this question was discussed, remarked that considerable progress had been made in the study of these problems and he thought that there

was considerable scope for cooperation between ISO and the ILO.

Cyril Ainsworth, delegate of the American Standards Association who had taken an active part in much of the preparation of safety codes in both the ASA and the ILO, agreed with Mr Vaage as to the value of the closest cooperation between the ISO and the ILO and suggested that the best way for bringing about the desired collaboration would be the appointment of a joint committee. This was agreed upon unanimously.

In the promotion of industrial

safety for the worker throughout the world, the International Labor Organization has an imposing record. Under preparation at the present time is a proposed Model Safety Code for Factories which is intended to offer recommendations for use in planning the layout, construction, installation, and operation of new factories in all parts of the world, especially in the countries ravaged by the war and in those countries which are developing new industries and factories. It covers all machinery, equipment, processes, and operations used or carried on in factories.

The definition "factories" does not include mines, building and civil engineering construction, railways, road transport, and shipping.

It is expected that the code will be submitted directly to official government representatives at a technical conference on safety provisions for factories which is scheduled to meet early in 1948.

Created 27 years ago, the ILO has been working consistently to carry out its original purpose, of which industrial safety is only a small part—namely, "to promote social justice in all countries of the world." To this end, it collects facts about labor and social conditions, formulates minimum international standards, and supervises their national application.

International Labor Office Is Organization's Secretariat

The machinery of the organization consists of the International Labor Office, the governing body, and the International Labor Conference.

The International Labor Office acts as a secretariat, a world information center, and a publishing

house. It is staffed by experts drawn from many different countries, whose knowledge, experience, and advice are available to all the nations which are members of the organization. It has branch offices and correspondents in many countries.

Governing Body Represents Government, Labor, Management

The governing body, composed of 16 government representatives, 8 representatives of labor, and 8 representatives of management, is the executive council of the organization and exercises general supervision over the work of the office and frames its budget.

The International Labor Conference serves as a world parliament for labor and social questions. Each national delegation to the annual meetings comprises four delegates—two representing the government, one representing labor, and one representing management. Each of these three sections speaks and votes independently, so that all points of view find full expression.

The Conference adopts minimum

international standards which are formulated in special international treaties called "conventions," and in "recommendations." These are based on fact-finding and discussion. As a two-thirds majority of the Conference is required for their adoption, they represent the general agreement of informed world opinion. Since the first Conference in 1919, the Conference has adopted conventions and recommendations dealing with such problems as hours of work, paid vacations, the protection of women and children, prevention and compensation of industrial accidents, insurance against unemployment, sickness, old age and death, conditions of seamen, etc.

National Legislatures Must Approve Standards Before Adoption

The decisions of the Conference are not automatically binding. Governments must submit the Conference standards to their national legislatures. If a legislature accepts a Convention, the government is bound to apply the Convention and to submit an annual report showing how it is applying it.

Survey May Help To Save Public's Money

The first large-scale national survey of public purchasing practices and procedures supported by a national organization has been undertaken by the National Institute of Governmental Purchasing. Questionnaires are in the mails to 750 public purchasing agents at all levels of government throughout the country. Purchasing agents for states, cities, towns, boroughs, counties, boards of education, port and housing authorities, publicly owned utilities, and other governmental units and their institutions are included in the survey, the immediate object of which is to gather facts concerning the practices and procedures in governmental purchasing units throughout the United States.

These variations in purchasing practices have long been a source of irritation and confusion for business organizations. Much of it is the result of diversified legal requirements in different jurisdictions. The problem is to arrive at some degree of standardization in practice which

will "buy more for the taxpayer's dollar."

Among the subjects covered by the questionnaire are procedures in making awards at public lettings, short order forms, contract bids, specifications, inspection and testing, qualifications of bidders, discounts, liquidated damages, payments, and warehousing. The survey is planned to provide data for a

complete report to be made at the Annual Conference of the NIGP which will be held in New York September 8-10.

The National Institute of Governmental Purchasing is also interested in the American Standards Association's project on model laws and ordinances, Z56. Governmental buyers are concerned with model laws and ordinances both on the grounds of legal restrictions or lack of statutory authority and in the problems involved in adopting codes and standards by reference.

Study Sizes of American Standards

Discussions have been taking place recently in the Company Member Committee and in the Standards Council of the American Standards Association to determine whether greater uniformity can be obtained in the sizes of American Standards.

A committee appointed recently to make recommendations to the Standards Council met July 11 under the chairmanship of Ralph G. McCurdy, Bell Telephone Laboratories. After

discussion of a report submitted to the Standards Council by the Company Member Committee, it was decided that more information was needed before the committee could reach a decision. As a result, a questionnaire will be sent to ASA Company Members as the user group most concerned with the size and format of American Standards. Replies will be used by the committee in formulating its recommendations.

ICAO-ISO Cooperation To Promote Air Safety

STANDARDIZATION is used as an effective weapon to promote safety and efficiency in civil aviation, L. Bedin, representative of the International Civil Aviation Organization, told the Executive Committee of the International Organization for Standardization at its meeting in Zurich. The ICAO is one of the international groups which made arrangements at this meeting to work jointly with the ISO. ICAO and the ISO, together, can do much to promote the development of standards in this important field, Mr Bedin told the Council. In his presentation, Mr Bedin stressed the desirability of mutual cooperation and indicated the similarity in the objectives of the two groups:

"You will observe that the primary concern of ICAO standards . . . is the safety and regularity of international air navigation," he said. "We understand that ISO projects for standardization in the field of civil aviation will be primarily directed toward the realization of efficiency and economy and convenience of supply, utilization, and interchange of equipment. The objectives are complementary, and, to a considerable extent, merge into one another. Broadly speaking, it would appear that these fields could be distinguished in the following way: ICAO is concerned to bring about the standardization of procedures and operating practices and of certain essential physical facilities necessary for international air navigation. The translation of these standards into material and manufacturing specifications is a problem outside the scope of ICAO and might be undertaken by the ISO."

Many Problems of Common Interest May Be Considered by the Two Groups

The details of such a relationship will require careful study, it was agreed. Among the many topics of common interest which might be considered are problems concerning communications, airworthiness of aircraft, and aerodromes and ground aids.

The First General Assembly of ICAO which met in Montreal in May has already taken certain action toward the international standardization of dimensional units. It passed a resolution recommending that, as rapidly as practicable, the Council of the organization adopt for use in air ground communications and in relevant publications in



United Air Lines.

international air navigation, the following system of units:

	System of Units
Distances	nautical miles and tenths
Altitudes, elevations, and dimensions on aerodromes.....	metres
Horizontal speed.....	knots
Vertical speed.....	metres per second
Wind velocity.....	degrees and knots
Cloud height.....	metres
Visibility	metres
Altimeter setting	millibars
Temperature	degrees centigrade
Weight	kilograms and metric tons
Time	24 hours, the day beginning at midnight Greenwich time

The Assembly also recommended that, as certain states might find it impracticable to use these units in all cases, suitable alternatives should be incorporated into these standards for adoption by those states which would have to maintain the use of the pound, foot, or statute mile as basic units.

ICAO derives its existence from the Convention on International Civil

Aviation. The Convention was drawn up at the Chicago Conference in December 1944 by the representatives of 54 nations who attended. The Convention came into force on April 4, 1947 upon its ratification by the required 26 states.¹ Forty-one states are now members of the organization and it is expected that this number will increase.

High Degree of Uniformity Sought, But ICAO Standards Not Mandatory

As in the case of the ISO, standards developed by ICAO are not mandatory upon the contracting states of ICAO. Each contracting state has undertaken to collaborate in securing the highest practicable degree of uniformity, but if any such state should find it impossible to comply in all respects with any international standard laid down by the ICAO Council, it must give immediate notification to the International Civil Aviation Organization of the difference between its own practice and that established by the international system. For these reasons, two further actions are required before any standard dimensional practice comes into effect; first, action by the ICAO Council itself, and second, the putting into practice of this standard by each individual nation concerned.

Quantity Prices For American Standards

Companies using the services of the American Standards Association are being invited to take advantage of quantity discount purchase prices of quantity purchase prices of American Standards. Because of increased printing and distribution costs, revised prices of some American Standards are listed in Part 2 of this issue.

Liberal discounts are available on purchases of ten or more copies, and special prepublication prices are being continued on standards published by the ASA.

¹ See INDUSTRIAL STANDARDIZATION, April 1947, page 81.



News

from other countries

Standards, Labels Used to Protect Quality of Australian Furniture

AN important contribution in a campaign to eliminate shoddy furniture construction is announced by the Standards Association of Australia as a result of completion of Australian Standard No. S1-1946. This standard lays down minimum requirements for the materials, construction, workmanship, and finish of household furniture.

According to the *Bulletin* of the Standards Association of Australia, the specification is the outcome of a recent convention of the furniture industry, at which it was resolved to move for the establishment of a code of minimum requirements for the manufacture of furniture in Australia. A draft, based on a specification issued by the New Zealand Standards Institute, was submitted jointly by the furniture manufacturers, the Furnishing Trades Union, and retailers throughout the Commonwealth to the Standards Association through the Furniture Convention of Australia.

The published standard contains sections dealing with definitions, materials, and construction, with details of such features as carcass sizes, fixing of legs, doors, table joints, table tops, chairs, bedsteads, upholstering, and springs, where minimum standards of construction are desirable.

The Convention also desired, however, to take practical steps to have the standard complied with by introducing a system for marking of all standard furniture, the *Bulletin* continues. The Association is seeking the authority to administer a system of "standards marks" to indicate compliance with standard

specifications as a guide to purchasers, but pending the completion of these arrangements, the Convention itself plans to operate a system for labeling standard furniture. In this scheme the Standards Association is assisting in a consultative capacity.

"The purchaser of household furniture in future should look for this label," the *Bulletin* advises. "The article on which he finds it will be guaranteed to comply with the requirements of the standard specification. That will not mean anything extravagant by way of superlative quality. To make all furniture conform to such a high standard would raise prices above the capacity of the buyer of small means. It will, however, mean that the article purports to be of good sound material, workmanship, form of construction and finish, and therefore reasonably good service may be expected of it. For quality above that of the standard for the more affluent buyer, the well-earned reputation of the maker or supplier of high-class furniture will still be a most useful guide."

New Zealand Standard Protects Disabled Veterans

In addition to its engineering, textile, and chemical divisions, the New Zealand Standards Council has an active domestic commodity division. According to the *Standards Review*, published by the British Standards Institution, this division includes a committee set up to undertake the development of a standard specifica-

tion for paua-shell jewelry and ornaments with the object of protecting the interest of disabled servicemen who are undergoing training in this craft as a means of rehabilitation. It is felt by the organizations concerned that the manufacture and sale of paua-shell jewelry and ornaments made from inferior material and faulty workmanship would react against the establishment of this industry, which otherwise holds good prospect of gaining and preserving a sound local market, in addition to an export trade, if a standard of quality of such wares were soundly maintained.

In view of the importance of the future economic security of disabled servicemen, the project was undertaken and a standard specification completed and issued last year. It establishes requirements relating to the quality of the paua-shell to be used, its mountings and setting, workmanship and finish.

Canada Organizes For Consumer Goods Standards

A new Standards Division which will concern itself with the size and quality of commodities that do not already come under any other government regulation has been established within the Canadian Department of Trade and Commerce.

It is especially hoped that the Division will set up machinery for the standardization and labeling of such consumer goods as standard size of clothing, particularly children's garments; standard food containers; and more uniform informative labeling of yard goods, garments, and equipment.

French Adopt Standard Paper Sizes

One principal and two secondary groups of paper sizes established by national standardizing body; ISA "international" sizes rejected

TWO new French standards for paper sizes, published not long ago, provide standard dimensions for paper rolls and cardboards (Q 02-000), and a series of dimensions of trimmed papers derived from the basic French sheet size "carré" (Q 02-001).

These new standards provide a basic sheet size of 45 x 56 cm, untrimmed, (17 $\frac{3}{4}$ x 22 in. approximately), 42 x 54 cm trimmed. The standard letterhead size (one quarter of the standard sheet) is 8 $\frac{1}{4}$ x 10 $\frac{5}{8}$ in., trimmed. These standard sizes are based on a 1935 French standard Q 1-1, and do not follow the international (ISA) system of paper sizes which has been widely adopted on the continent. The letterhead size in the ISA system is 21 x 29.7 cm (approximately 8 $\frac{1}{4}$ x 11 $\frac{1}{2}$ in.).

It may be of interest to look back over the long path which the French standard for paper sizes has followed during the last couple of centuries. It was in 1739 that King Louis XV signed a decree fixing dimensions of three French basic paper sizes called "Carré," "Raisin," and "Jésus." The revolution of 1793, eager to bring new blood into the old corps, wanted to "rationalize" the law of 1739 and, as a result, on the "13 Brumaire, An 7" (November 4, 1799), a series of sizes for stamped government paper was standardized. Incidentally, these standards are still respected by the French administration and still are popular in many European countries.

Similarity Found Between Sizes Advocated in 1739 and 1946

It is difficult to see now what were the reasonings of the King's scientists in 1739 and why they chose this particular size, carré, as the principal basic paper size. But, curiously enough, when in 1946 a commission of the Association Francaise de Normalisation (AFNOR) studied this question when revising the

standard Q 1-1, a remarkable similarity was observed between the 18th century's dimensions and those which were proposed on the basis of preferred numbers. Was it a simple coincidence or is there some logic behind it?

Federation of French Printers Opposes International Paper Sizes

The history of the development of French modern standards for paper sizes can be found in the "Rapport de Présentation No. RH 250" published in the *Courrier de Normalisation* over the signature of E. Lhoste, General Director of AFNOR. It appears that when the International Standards Association (ISA) initiated the study of international standards for paper sizes in 1926 and invited AFNOR to join other countries for this purpose, the whole idea was strongly opposed by the Federation of French Printers. They said that adherence to the international paper sizes would be onerous to French industry since it would require redesigning of French machinery. It would, consequently, place French manufacturers at a disadvantage in comparison with German manufacturers who would not be obliged to make changes in their equipment because the proposed international size was very near the German national size.

It should be mentioned, however, that the French Committee on Mechanical Standardization, the French Electrotechnical Committee, the Air Ministry, and several other technical services were favorably inclined towards the ISA paper sizes. Consequently, three possible solutions were considered by the AFNOR Commission:

- (a) To limit its study to revision and simplification of the existing French standard for paper sizes;
- (b) To adopt in its entirety the sizes chosen and recommended by ISA;
- (c) To include ISA sizes in the French standard along with French sizes.

The third suggestion (c) was rejected from the very beginning, leaving the alternative: French national sizes vs ISA "international" sizes. Facing this dilemma, AFNOR started a wide public inquiry in July 1930. The inquiry was carried out among more than 3000 individuals and firms and a great many pro and con arguments were received. These could be summarized as follows:

For Adoption of ISA sizes

- (1) The principal ISA size derives directly from the metric system, since the basic sheet size "A" has an area of 1 square meter exactly.
- (2) The ratio of the sides in the principal ISA paper size "A" and in additional sizes "B" and "C" being the same, i.e. $\sqrt{2} = 1.41$, subdivisions made in each series by folding the sheet in half and parallel to its small side remain always in the same proportion.
- (3) The ISA size "A4" represents a most appropriate minimum size for technical drawings and due to similarity of its derivatives is well suited to photoreproduction.
- (4) Adoption by France of paper sizes other than ISA sizes would create difficulties for French paper export to neighboring central European countries.
- (5) Postal cards approved by the Postal Union, as well as French Government stamped papers, correspond to ISA sizes.

Against adoption of ISA sizes

- (1) The necessity of buying new machinery or redesigning the old would involve a considerable money expenditure.
- (2) Due to the much larger size, often unnecessary for commercial letters, the users would waste paper and money.
- (3) Since foreign manufacturers would not have to pay the extra expense for new machinery, they would be able to undersell French manufacturers even on the French market.
- (4) Adoption of ISA sizes would increase the difficulties of French export to Anglo-Saxon and certain South American countries whose national paper sizes are very close to French sizes.

The public inquiry initiated by AFNOR revealed that in addition to the exporting circles mentioned above a strong objection to ISA sizes came from such important users as the Imprimerie Nationale (National

Printing Plant), commercial departments of principal French railroad companies, banks, printers, and printing machinery manufacturers.

In view of such a divergence of opinion, AFNOR tried to find a compromise solution and in November 1931, with this aim in view, called together a commission on which all sides were adequately represented. Unfortunately, no unanimous decision was obtained and finally AFNOR decided to side with the majority of users and with practically the whole French paper industry. In May 1935 the French standard Q 1-1 for paper sizes was approved.

Briefly, the standard Q 1-1 established one principal and two secondary groups of paper sizes, preserving their medieval names. These sizes of simple untrimmed sheets were:

	Centimeters	Approx equivalent in inches
Principal group:		
Carré	45 x 56	17 $\frac{3}{4}$ x 22
Secondary groups:		
Raisin	50 x 64	19 $\frac{5}{8}$ x 25
Jésus	56 x 72	22 x 28 $\frac{3}{8}$

The standard also established the *trimmed size* for the principal carré group; i.e., 42cm x 54cm. The French commercial paper size almost exclusively used in that country represents one quarter of this basic size and measures 21cm x 27cm (8 $\frac{1}{4}$ in. x 10 $\frac{5}{8}$ in.).

Meantime, the so-called "international," ISA, sizes were approved and recommended for use by 14 countries; however, the signatures of France, Great Britain, and the United States do not appear on ISA Bulletin No. 7 for Paper Sizes.

Actual comparison of four principal paper sizes shows (see Fig. 1) that the French commercial paper size holds a place between the English and the United States sizes and that the "international," ISA, size is much larger than any of the Anglo-Saxon sizes. No standard English or American filing cabinet could conveniently accommodate the ISA paper sizes.

Six years after the approval of the Q 1-1 standard, AFNOR felt that the standard should be revised and simplified and on December 18, 1941 a technical commission set up by the Bureau of Paper Standardization had its first meeting. It required almost five more years for this commission to make its choice.

The whole problem was divided into two parts: standardizing the dimensions of paper rolls, and standardizing the sizes of flat sheets. Before standardization the paper rolls were manufactured in a great variety of sizes because they were produced on machinery of variegated origin and size. It required much effort for the commission to persuade the manufacturers to produce rolls, the widths of which were chosen from the R 20 series of preferred numbers, from which the standard sheet sizes would cut without waste. The result of adoption of the standard roll sizes was elimination of waste and of odd sizes and reduction of the cost of production.

In June 1946 the standard Q 02-000 was approved, fixing widths of paper rolls from which the principal (called "carré"), secondary, and auxiliary groups of basic sheet sizes

could be manufactured. Six months later, in January 1947, the standard Q 02-001 was approved, fixing the principal carré size and its derivatives. The table at the top of page 203 shows various regular derivatives of the principal carré sheet of 45cm x 56cm untrimmed and 42cm x 54cm trimmed.

Because certain special work required special sizes not found among regular derivatives of the basic carré size (for example: check blanks), the standard approves also "special derivatives" obtainable from the standard trimmed in-4° carré (21cm x 27cm) size. Thus there are 1/6 carré (18cm x 21cm), 1/8 carré lengthwise (10.5cm x 27cm), and 1/12 carré (9cm x 21cm). A very elaborate list of recommendations for practical application of various carré derivative sizes concludes the standard.

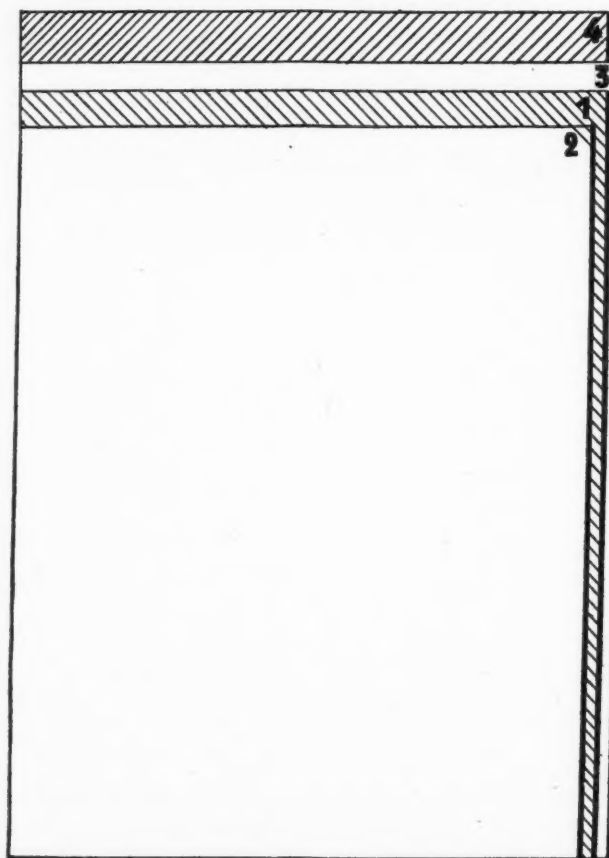


Fig. 1. Comparison of commercial paper sizes used in principal countries.

- 1 French commercial size, 21 x 27 cm (8 $\frac{1}{4}$ x 10 $\frac{5}{8}$ in.)
- 2 Principal English commercial size, 20.5 x 25.7 cm (8 x 10 in.)
- 3 Principal American commercial size, 21.5 x 28 cm (8 $\frac{1}{2}$ x 11 in.)
- 4 German commercial size called "international", 21 x 29.7 cm (8 $\frac{1}{4}$ x 11 $\frac{1}{2}$ in.)

Designation of Sizes		Number of Folds	Sizes in Centimeters		Approximate Equivalent in Inches	
			Untrimmed	Trimmed	Untrimmed	Trimmed
Folio Carré	(1½ sheet)	1	28 x 45	27 x 42	11 x 17¾	10⅝ x 16½
Quarto (or in-4°)	(¼ ")	2	22.5 x 28	21 x 27	8⅞ x 11	8¼ x 10⅝
Octavo (in-8°)	(⅛ ")	3	14 x 22.5	13.5 x 21	5½ x 8⅞	5¼ x 8¼
In-64°	(1/64 ")	6	5.6 x 7	5.2 x 6.7	2⅛ x 2¾	2⅝ x 2

Incidentally, AFNOR wanted one day to check up on actual paper sizes commonly used in France. They chose at random a date and an hour (10 A.M., July 27, 1946) and analyzed all their incoming mail from the standpoint of sizes. This

contained 196 French and 15 foreign letters. The result of this survey of incoming mail was as follows:

85 percent of French letters were on in-4° carré (21cm x 27cm)
15½ percent of French letters were on in-8° carré (13½cm x 21cm)

1½ percent of French letters were on nonstandard sizes

As for foreign letters, fifteen in number, they came from seven countries and were on *eleven different sizes!*

Forging Ahead

"It is singularly appropriate that the year which completes the first 25 years of Australia's national standards organization should be one in which a strong forward movement is being initiated to cope with the post-war program. A detailed survey of this field was made and presented to the Council of the Association. It showed that rather more than double the present staff and facilities would be needed to deal effectively with it. The Council decided to aim for at least double its revenue within the next few years. An appeal to the Commonwealth for a first installment of increases in subsidy met with an immediate and sympathetic response. State Government contributions commensurate with the benefits accruing from the work are being sought. The third line of advance must be in the direction of contribution from private enterprise.

"Acting on the Commonwealth Government's favorable response and in confidence that State Governments and industry and commerce will meet the challenge, the Association has sought new staff. . .

"Industry and commerce have contributed substantially in the past by money and services to the work of the Association. In the great majority of cases, however, the extent of these contributions has not kept pace with the growth of the Association's influence.

"Will private enterprise now take its fair share of responsibility? It is fortunate in having in Australia a

national standards body operating on a truly cooperative basis. If it wants to retain that asset it must bear its share of the cost."

—Standards Association of Australia *Bulletin*, April 1947

Canada Reports On Testing Service

Completion of its sixth year of operation is reported by the Approvals Division of the Canadian Standards Association. Inaugurated in 1940 as a national authority for testing and listing of approved electrical equipment and appliances, the division is run at cost and financed separately from the standards work of the Association. The equipment and appliances are tested to determine whether they can be safely used without danger of electrical shock or fire.

The *Quarterly Bulletin* of the CSA states that during the past year 1710 applications for testing and approval were received from electrical manufacturers in Canada, the United States, Great Britain, and European countries. More than 4,000 factory inspections were completed and slightly more than 8½ million labels were sold for application to electrical equipment and appliances.

Applications for the testing of electrical equipment and domestic oil-burning devices continue to increase each month, causing considerable difficulty in the maintain-

ing of adequate technical staff to carry out the necessary tests and the inspections under re-examination service at manufacturers' plants, continues the *Bulletin*.

As reconversion from war to peace production progresses, it is believed that the approvals operations will become stabilized. In the meantime, manufacturers are urged to apply for approval on new models as far in advance of actual commercial production as possible, or accept inevitable delays due to limited facilities for carrying out type-tests in the face of ever-increasing demands on staff and testing equipment.

Association Not Responsible for Errors in Standards

"The question of the responsibility of the Canadian Standards Association in the matter of possible technical errors or weaknesses in CSA published specifications upon which industrial production has been based had been discussed with legal counsel, it was reported, and the opinion had been given that since the best available technical talent had been employed and because the CSA was a voluntary organization operating on a nonprofit basis, there would be no group or individual responsibility as far as the CSA was concerned."

—*Quarterly Bulletin* of the Canadian Standards Association

Commonwealth Conference Recommendations on Marking Products for Compliance with Standards

Among the recommendations adopted at the British Commonwealth Standards Conference held in London in October 1946 are the following:

"That each national standards organization should have a mark or marks to be known as the standards mark or standards marks and that those countries which have not already done so should pass legislation providing for such marks and their protection.

"That legislation relating to stand-

ards marks should be in a separate Act or otherwise be separate and distinct from legislation relating to other marks.

"That legislation should provide that the administration and control of licenses to use standards marks be vested in the national standards organization.

"That the governments of the Commonwealth countries should recognize and protect the standards marks of the other Commonwealth countries."

Beekeepers to Meet; Claim Bees Can Hear

The British Beekeepers' Association, active in standardization of beehives and beekeeping equipment, is planning a convention on September 5-7 and has indicated that it would like to have American representatives present at its meeting.



The British beekeepers are interested in the work being done by American beekeepers and are expected to invite representation from the National Federation of Beekeepers' Associations.

Recently the British Standards Institution announced publication of a British national standard on Bees (Colonies and Nuclei) BS 1372: 1947, based on a specification pre-

pared by the British Beekeepers' Association. The standard applies to bees offered for sale either with or without a hive. The minimum strength of colonies and nuclei of bees in terms of frames, the amount of eggs brood, drone cells and stores, is prescribed.

A member of the Council of the British Beekeepers' Association informs the American Standards Association that British bee experts, in addition to their work on standards, have recently conducted experiments which they report have convinced them that bees are not only sensitive to vibration but that they actually can hear.

If a young queen on a frame full of bees "pipes" her call, consisting of six staccato notes, the bees hearing the call go flat, the beekeepers report. To determine whether bees actually can hear, the experimenters placed a microphone and small loudspeaker about 50 yards apart, with a hedge in between. They made sure that no vibration could be communicated from one to the other. A queen was then made to "pipe" into the microphone. Immediately all the bees in the frame next to the loudspeaker went flat. This was done twice with the same results, conclusive evidence that the bees heard the call, experts of the British Beekeepers' Association declare.

New Standards from Other Countries

Standards from other countries may be borrowed by ASA Members.

Australia

Basins, A48-1946, June 1946
Baths, A47-1946, January 1946
Burettes and Bulb Burettes, R10-1947, February 1947
Cement Concrete Wash Troughs, A17-1946, February 1946
Dimensions of Structural Timbers, O56-1946, May 1946
Glazed Sanitary Pedestal Pans, A50-1946, September 1946
Locks for Household Doors, A54-1946, July 1946
Magazines for the Storage of Explosives, A65-1946, June 1946
Road Signs Code, CE1-1946, March 1946
Seats, "Full Round" Type for Sanitary Pedestal Pans, A51-1946, August 1946
Straight Pipettes, R7-1947, February 1947

Specifications for Aircraft Material

Aluminum Alloy Bars and Sections, Emergency, No. (E) 2D 649-1946, July 1946
High Pressure Seamless Copper Tubes, Emergency, No. (E) 2D 709-1947

Great Britain

New Standards Issued

Asphalt Tiles for Paving and Flooring—Mineral Aggregate With No Inherent Bitumen, BS1325:1946
Domestic Electric Ovens, Part 1: Cooking Tests, BS1315:1946
Fuel-Fired Regenerative Tank Furnaces for Melting Glass, BS1312:1946
High-Voltage Overhead Lines on Wood Poles for Line Voltages Up To and Including 11kV, BS1320:1946
Office Mechanization, BS1100: Part 8:1946
Plastic Picnic-Type Tableware, BS1321: 1946
Recommendations for Phosphate Coatings As a Basis for Painting Steel, PD539: 1946
Synthetic-Resin Bonded-Paper Sheet (Thermosetting) for Use in the Building Industry, BS1323:1946
Wood Laths for Plastering, BS1317:1946

Specifications for Aircraft Material

Non-Corrodible Steel Wire Rope (Not Preformed), W.10, September 1946

Great Britain

Specifications for Aircraft Material—Cont'd

Preformed Non-Corrodible Steel Wire Rope, W.11, September 1946
Preformed Steel Wire Rope, W.9, September 1946
Steel Wire Rope and Straining Cords (Not Preformed), 6W.2, September 1946

Foreign Language Standards

The standards listed below are available in the language of the country from which they were received.

France

Chemistry—

Contents of Conventional Dry Extract in Varnishes, Paints, and Similar Products, T30-013
Determination of Consistency of the Paint, T30-014
Rubber Ice Bags, T47-121
Rubber Pears, T47-123/4

France Chemistry—Continued

Solid Rubber Tires for Wheels of Diameter Less Than 625 mm, T47-003
Classification of Solid Combustibles According to Size, M10-002
Trimmed Paper Sizes Derived by Subdivision of Basic "Carré" Size, Q02-001
Railroad Material—
Cloth and Hat Pegs: Dimensions, F31-007
Compressed Air Brakes: Tolerances for Triple Valve, F11-004
Free-Draft Ventilators and Aspirators: Dimensions, F01-040
Handles: Dimensions, F01-041
Itinerary Signs and Methods of Their Hanging, F31-002/4/5
Protective Boxes in Asbestos-Cement and Reinforced Concrete for Storage Batteries of Electric Signal System: Dimensions, F55-002 through F55-006
Servicing Shop Identification Tag for Compressed Air Brakes, F11-005
Signal Flags and Accessories, F79-001
Wall Ash-Trays, F31-006
Glass: Contents of Litharge (PbO) in Glass and Crystal, B30-005
Glass: Crystal, B30-004

Mexico

Asbestos Cement Pipes, C12-1947
Ceiling Cloth, A11-1947
"Indian Head" (Cotton Textile), A10-1947
Refined Lead in Ingots, B20-1946
Untanned Goat Skins or Hides, I-3-1947

Poland

The ASA Library has received 105 Polish standards covering such subjects as building, chemistry, mechanical engineering, scientific symbols, and standard reference temperature.

Belgian Standards Information Published Monthly

The Institut Belge de Normalisation (IBN), national standardizing body of Belgium, has changed its policy of printing its "Information Circulars" in the magazine, *Standards*, official publication of the Société Belge de Mécaniciens. Since January of this year, they are being printed separately each month. The circulars contain information about Belgian standards under development, new Belgian standards, new standards issued by other countries as they are received in Belgium, and a news article about standardization.

Numbers 1 and 2 of the Circulars have been received in the ASA Library and are available to members for consultation.

Woodworking Code Is Basis for State Safety Standard

A score of woodworking shop proprietors and officials of cabinet and pattern shops in industry voiced general approval of a proposed new safety code for woodworking machinery in Rhode Island at a hearing sponsored by the Industrial Code Commission last month. The code is based on the American Standard Safety Code for Woodworking Machinery, O1.1-1944, and was drafted by a group of plant owners, labor representatives, and insurance safety engineers.

Standards for Newspaper Promotion Material

Although some form of standardization is considered to be important, little standardization of newspaper promotional material is now being done except in the size of material distributed. This was the finding of a survey made by the National Newspaper Promotion Association, according to a report in *Editor and Publisher*.

Asked if they try to standardize their basic promotion material, 22 of the 80 members who replied said "yes"; 42, "yes, some of it"; 9, "very seldom"; 5, "never"; and 2, no answer. In answer to the question, "In what way do you standardize your material?" the members replied as follows:

Size of material (8½ x 11 inches), 53; standard basic information, 12; standard layout or art or both, 9; sources of information, 7; format, 2; typography, 2; color, 1.

The committee making the survey commented: "Smaller promotion departments, especially in competitive fields, seem to have standardization of their material in more categories than do the larger promotion departments. For example, in competitive markets those over 15 merely try to standardize the size of the promotion piece and the layout or art work."

The committee's report concluded: "Most promotional departments are

of the opinion, however, that some form of standardization is important. A number of comments in attaching letters state that standardization, at least as to size and basic market data, should be similar for all markets and newspapers."

Gaillard Gives First Seminar on Industrial Standardization

The first privately conducted seminar on the organization and technique of industrial standardization, given June 23 to 27 in New York by Dr John Gaillard, mechanical engineer on the staff of the American Standards Association and lecturer at Columbia University, was attended by sixteen conferees. Twelve of these were engineers from manufacturing concerns in the mechanical, electronics, optical, and plastics and synthetic fibres industries in various parts of the United States, who were particularly interested in company standardization work. The other four conferees were a member of the teaching staff of one of the leading engineering colleges, a standards engineer of the Army Transportation Corps, and two representatives of the national standards organizations in Canada and China, respectively.

Each of the ten meetings consisted of a lecture by Dr Gaillard, followed by general discussion. (For an outline of the entire series of lectures, see *INDUSTRIAL STANDARDIZATION*, May 1947, page 108.) Active participation of the conferees in the discussions led to exchange of a sizeable volume of interesting information concerning practices adopted in the various industries represented.

Following a suggestion made by several conferees and requests received from individuals and industrial concerns, this seminar will be offered again early in 1948, probably in the second half of January. The definitive dates will be announced later. In the meantime, those interested are requested to address correspondence on this subject to Dr Gaillard at his home address, 400 West 118 Street, New York 27, N. Y.

ASA Standards Activities

American Standards Approved

Machine Pins, B5.20-1947

Sponsors: American Society of Mechanical Engineers; Metal Cutting Tool Institute; National Machine Tool Builders' Association; Society of Automotive Engineers

Sizes of Clay Flue Linings, A62.4-1947

Sponsors: American Institute of Architects; Producers' Council

Dimensions for 16-Tooth 35-Millimeter Motion Picture Projector Spockets, Z22.35-1947 (Revision of Z22.35-1930)

Cutting and Perforating Dimensions for 16-Millimeter Silent Motion Picture Negative and Positive Raw Stock, Z22.5-1947 (Revision of Z22.5-1941)

Cutting and Perforating Dimensions for 16-Millimeter Sound Motion Picture Negative and Positive Raw Stock, Z22.12-1947 (Revision of Z22.12-1941)

Cutting and Perforating Dimensions for 8-Millimeter Motion Picture Negative and Positive Raw Stock, Z22.17-1947 (Revision of Z22.17-1941)

Cutting and Perforating Dimensions for 35-Millimeter Motion Picture Positive Raw Stock, Z22.36-1947 (Revision of Z22.36-1944)

Nomenclature for Motion-Picture Film Used in Studios and Processing Laboratories, Z22.56-1947

Sponsor: Society of Motion Picture Engineers

Method for Determining Photographic Speed and Exposure Index, Z38.2.1-1947 (Revision of Method for Determining Photographic Speed and Speed Number, Z38.2.1-1946)

Method for Determining Resolving Power of Lenses for 35-Millimeter Slidefilm and 2 x 2-Inch Slides, Z38.7.16-1947

Sponsor: Optical Society of America

American Standards Withdrawn

Dimensions for Amateur Roll Film and Backing Paper, No. 2, Z38.1.8-1943

Dimensions for Amateur Roll Film and Backing Paper, No. 6, Z38.1.12-1943

Dimensions for Amateur Roll Film and Backing Paper, No. 8, Z38.1.14-1943

Dimensions for Amateur Roll Film Spools, No. 2, Z38.1.17-1943

Dimensions for Amateur Roll Film Spools, No. 7, Z38.1.22-1943

Sponsor: Optical Society of America

Specification for Photographic Contact Printers, American War Standard, Z52.18-1945

Specification for Projectors for Slides and Slide-Films, American War Standard, Z52.28-1945

Standards Being Considered for Approval

Specifications for Dry Cells and Batteries (NBS Circular C435) (Revision of C18-1941)

Sponsor: National Bureau of Standards, U.S. Department of Commerce

Code for Electricity Meters (Revision of C12-1941)

Sponsors: Electric Light and Power Group; National Bureau of Standards, U.S. Department of Commerce

Standards Being Considered for Approval—Continued

Practice for Street and Highway Lighting, D12

Sponsor: Illuminating Engineering Society
Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless Steel Pipe for Ordinary Uses (Revision of ASTM A120-44; ASA G8.7-1945)

Forged or Rolled Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service (Revision of ASTM A105-40; ASA G17.3-1940)

Steel for Bridges and Buildings (Revision of ASTM A7-42; ASA G24.19-1942)

Structural Silicon Steel (Revision of ASTM A94-39; ASA G41.1-1942)

Proprietary Sponsor: American Society for Testing Materials

Safety Code for Bakery Equipment, Z50.1
Sponsor: American Society of Bakery Engineers

Emulsion Position in Projector for Direct Front Projection of 16-Millimeter Silent Motion Picture Film (Revision of Z22.10-1941)

Emulsion and Sound Record Position in Projector for Direct Front Projection of 16-Millimeter Sound Motion Picture Film (Revision of Z22.16-1941)

Emulsion Position in Projector for Direct Front Projection of 8-Millimeter Silent Motion Picture Film (Revision of Z22.22-1941)

Sponsor: Society of Motion Picture Engineers

Textile Safety Code (Revision of L1-1929)
Sponsor: National Safety Council

Standards Being Considered for Reaffirmation

Manhole Frames and Covers for Subsurface Structures, A35.1-1941

Sponsors: American Society of Civil Engineers; ASA Telephone Group

Engineering and Scientific Charts for Lantern Slides, Z15.1-1932

Time-Series Charts, Manual of Design and Construction, Z15.2-1938

Engineering and Scientific Graphs for Publications, Z15.3-1943

Sponsor: American Society of Mechanical Engineers

Withdrawal of Approval Being Considered

Code for Electricity Meters, American War Standard, C12WS-1942

Specification for 750 Volt Direct Suspension Overhead Trolley Contact, C15-1935

Proprietary Sponsor: American Transit Association

New Project Initiated

Ladder Towers and Rolling Scaffolds, A92

Sponsor: National Safety Council

New Projects Being Considered

Sound Recording
Steel Raceways for Electrical Wiring Systems

Projects Under Way

Acoustical Measurements and Terminology, Z24—

Sponsor: Acoustical Society of America

The first meeting in two years of Subcommittee F on Audiometers and Hearing Aids was held in Washington on July 18 and 19. The current activity of this group is due to the urgent need for better audiometers for diagnostic purposes to aid in veteran rehabilitation as well as for civilian use.

While this subcommittee's scope includes the drawing up of specifications for hearing aids as well, work on these specifications is being held in abeyance until standards for the otologist's basic tool of measurement, the audiometer, have been established. During the past ten years, there have been more than a dozen specifications written for such devices and it is hoped that this American Standard will act as a model for any other organization wishing to develop specifications of this type.

It is expected that the draft which was reviewed at this meeting will be submitted to the sectional committee for its recommendations within the next thirty days.

Administrative Requirements for Building Codes, A55—

Sponsors: American Municipal Association; Building Officials' Conference of America, Inc.

The third draft of the proposed revision of American Standard Administrative Requirements for Building Codes, A55.1-1944, is now out to letter ballot of the sectional committee.

Building Code Requirements for Fire Protection and Fire Resistance, A51—

Sponsors: National Board of Fire Underwriters; National Fire Protection Association; National Bureau of Standards, U. S. Department of Commerce

The sectional committee for this project met on June 27, following meetings by several subcommittees on preceding days during the week of June 23.

A report on classification of occupancies, previously considered by the sectional

committee on several occasions, was considered sufficiently representative to be duplicated and circulated widely for comment and criticism. Progress reports from other subcommittees were received on several subjects, including interior finishes, height and area limitations, classification of types of construction, and protection of openings.

Machine Pins, B5.20-1947—

Sponsors: American Society of Mechanical Engineers; Society of Automotive Engineers; National Machine Tool Builders' Association; Metal Cutting Tool Institute

This American Standard, approved on July 7, 1947, by the Board of Review, is now available from the ASA for 45 cents. It covers nominal dimensions and tolerances for:

Hardened and ground dowel pins in sizes from $\frac{1}{8}$ in. to $\frac{3}{8}$ in. diameter and $\frac{1}{2}$ in. to $5\frac{1}{2}$ in. length.

Straight pins 0.062 in. to 0.500 in. diameter and ground dowel pins 0.062 in. to 0.100 in. diameter.

Commercial and precision type taper pins in sizes 7/0 to 14.

Clevis pins in sizes from 0.188 in. diameter to 1.000 in. diameter.

Cotter pins 0.031 in. diameter to 0.750 in. diameter.

Performance Requirements for Protective Occupational Footwear, Z41—

Sponsors: National Conservation Bureau; National Safety Council

The subcommittee on review of standards of the project on safety shoe specifications met on July 9 to redraft American Standard Specifications for Men's Safety-Toe Shoes, Z41.1-1944, and for Women's Safety-Toe (Oxford) Shoes, Z41.2-1944. The purpose of the meeting was to revise the standards for peacetime use by eliminating those sections which had been prepared primarily with a view to conservation of materials.

On July 16 the subcommittee on research met to examine methods of test in order to determine their adequacy in the light of experience with the war standards. The subcommittee prepared a questionnaire by which it is hoped to learn whether or not it will be necessary to revise the test methods for compression, impact, and corrosion.

The subcommittee also voted to recommend to the chairman of the sectional committee that a research project be proposed to the American Society of Safety Engineers to evaluate the present tests and to investigate improvements over the present methods.

Radio-Electrical Coordination, C63—

Sponsor: Electrical Standards Committee

A reorganization meeting of Sectional Committee C63 was held on July 11 at which two new subcommittees were appointed. An ad hoc subcommittee under the chairmanship of W. F. Davidson was formed to plan the future work of the sectional committee. It will make recommendations to the sectional committee on how the problem of specifications for radio-noise meters should be attacked and will also recommend to the sectional commit-

tee the general approach to methods of measurement.

The second subcommittee, with R. S. Tucker as chairman, was set up to advise the American delegation which is planning to go abroad this fall to meetings of the Comité International Spécial des Perturbations Radiophoniques (CISPR) in Lucerne, Switzerland. A meeting of this subcommittee is planned for September 3.

Safety Code for Bakery Equipment, Z50—

Sponsor: American Society of Bakery Engineers

The proposed American Standard for Bakery Equipment, Z50.1, is now out to letter ballot of the Board of Review, and approval is expected shortly. It is expected that copies of this standard will be available next month.

The code will establish safety standards for the construction, installation, operation, and maintenance of bakery machinery and equipment.

Safety Color Code, Z53—

The National Safety Council has been invited to serve as sponsor for the peacetime project on the Safety Color Code, Z53, following approval by the Safety Code Correlating Committee.

Safety in Electric and Gas Welding and Cutting Operations, Z49—

Sponsor: American Welding Society

Approval of the personnel of Sectional Committee Z49 and of its scope has just been affirmed through a letter ballot of the Safety Code Correlating Committee.

The new scope of the project is as follows:

"Protection of persons from injury and illness and protection of property (including equipment) from damage by fire and other causes arising from electric and gas welding and cutting equipment, its installation, operation, and maintenance."

At a meeting of the sectional committee on June 12 and 13, Oscar F. Lehman, representing the Automobile Manufacturers Association, was elected chairman and John E. Long, representing the Association of American Railroads, was elected vice-chairman. The appointment of S. A. Greenberg of the American Welding Society as secretary was also announced.

Women's Industrial Clothing, L17—

Sponsor: Associated Manufacturers of Washable Service Apparel

At a meeting of the subcommittee on Minimum Garment Sizes which met on June 13, two tables of proposed minimum finished garment sizes for occupational dresses (including uniforms) were prepared. These tables are being circulated for comment to members of the sectional committee and interested members of the women's occupational clothing industry. The tables and comments received will be considered at the next sectional committee meeting, planned for the early fall.

NRDGA Asks for Project on Standard Dress Sizes

The National Retail Dry Goods Association has asked the American Standards Association "to undertake as soon as possible a study of women's dresses for the purpose of proposing standard dimensions for each size." The NRDGA has offered to serve as sponsor for such a project.

Members of the Association have been complaining that size designations such as "14," "16," and "18" referred to "different dimensions in the case of many manufacturers." Lew Hahn, president of the NRDGA, explained. Women generally want standardization of dress sizes, he said.

Robert A. Seidel, vice-president and controller of the W. T. Grant Company, and chairman of the ASA Advisory Committee on Ultimate Consumer Goods, explained that if the ASA approves the initiation of the project, one of the first things to be done would be to appoint a working committee on which the dress industry itself would have an important part. "In attacking the size problem," he said, "we are proceeding on the basis that a lot of different people have made progress on the subject. The trouble is that it's never been coordinated."

A letter ballot has already gone to the Advisory Committee on Ultimate Consumer Goods to initiate the project.

Use of JAN Standard on Drawing Sizes Becomes Mandatory

The use of the Joint Army-Navy Standard for Drawing Sizes, JAN-STD-2, will become mandatory on September 1, 1947, for all new drawings prepared for the War and Navy Departments. Work on this standard, which contains both drawing sizes and letters designating size, was begun under ASA war committee Z14 during the war.

For the Building Industry

Steel Joist Requirements Now Available

The most recent standard in the national building code series is designed for the use of building officials, architects, and engineers. American Standard Building Code Requirements for Steel Joist Construction, A87.1-1947, in-

cludes sections on material, allowable stresses and methods of design, factor of safety, decks and top slabs, erection, and bridging. Sponsored by the American Iron and Steel Institute and the American Society of Civil Engineers, it

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